

REMARKS

In the Final Office Action, the Examiner rejected claims 24-26 under 35 U.S.C. § 101 as being directed to non-statutory subject matter. Under 35 U.S.C. § 103(a), the Examiner rejected claims 1-3, 7-8, and 10-23 as being unpatentable over *Vaughan*, U.S. Patent No. 4,800,590, in view of *Frey et al.*, U.S. Patent No. 5,416,921; claims 4-6 and 9 as being unpatentable over *Vaughan* and *Frey et al.* further in view of *Mann et al.*, "An Algorithm for Data Replication," and claim 23 as being unpatentable over *Vaughan* and *Frey et al.* further in view of *Endicott et al.*, U.S. Patent No. 5,404,525.

By this paper, Applicant has amended claims 1-3, 7, 14-15, and 17 to clarify the subject matter of the invention. Applicant has also cancelled claims 5-6 and 24-26, without disclaiming the subject matter contained therein.

Section 101 Rejections

The Examiner rejected claims 24-26 under 35 U.S.C. § 101 as being directed to non-statutory subject matter. Although Applicant maintains that claims 24-26 recite statutory subject matter for the reasons given in the previous Response to Office Action, Applicant has cancelled claims 24-26 in order to move prosecution of the remaining claims forward.

Section 103 Rejections

The Examiner cited 35 U.S.C. § 103(a) to reject claims 1-3, 7-8, and 10-23 over *Vaughan* in view of *Frey et al.*; claims 4-6 and 9 in view of *Vaughan* and *Frey et al.* further in view of *Mann et al.*; and claim 23 as being unpatentable over *Vaughan* and *Frey et al.* further in view of *Endicott et al.*

To support a rejection under section 103(a), the references, taken alone or combined, must teach or suggest each and every element recited in the claims.

M.P.E.P. § 2143.03 (8th ed. 2001, 2nd revision May 2004). Amended claims 1-4 and 7-23 all recite elements not disclosed or suggested by the cited references. Accordingly, Applicant requests the reconsideration and withdrawal of the section 103 rejections of these claims.

Claim 1, as amended, recites a method including the steps of determining a first list of nodes in a multinode system, including a processor-based node, that have access to a shared peripheral device, generating a first value reflecting the first list of nodes, and storing the first value at the shared peripheral device. Neither *Vaughan* nor *Frey et al.*, taken alone or together, teaches or suggests such a method.

Vaughan discloses a portable password generator that can be used to remotely access a lock computer that controls access to a host computer. *Vaughan*, Abstract; Fig. 2. The passwords of *Vaughan* are generated based on a pseudo-random number associated with a user's PIN and a time signal. When a PIN is entered into the password generator, "the password generator 10 utilizes a portion of the pseudo-random number sequence, for example, six digits of the sequence, and the time signal from clock 30 to generate a password for access to host computer 52." (*Id.*, col. 6, ll. 37-41.)

Nothing in the reference discloses or suggests generating a value reflecting a first list of nodes in a multinode system that have access to a shared peripheral device. First, *Vaughan* cannot teach or suggest generating a value including a first list of nodes in a multinode system because, as the Examiner has noted, *Vaughan* does not even

disclose a multinode system. (2/9/05 Office Action, p. 5.) Second, the reference touts the benefits of generating passwords on the basis of time periods because such passwords are valid only for a short time “[b]y separately generating the passwords at the remote generator and the interface on the basis of corresponding information in each unit and time periods defined by clocks in each unit....” *Vaughan*, col. 4, ll. 28-39.

Furthermore, combining the teachings of *Frye et al.* with *Vaughan* also does not teach or suggest a method including the steps of determining a first list of nodes in a multinode system, including a processor-based node, that have access to a shared peripheral device, generating a first value including the first list of nodes, and storing the first value at the peripheral device.

Although *Frey et al.* may disclose a shared peripheral device being used in a multinode system, the Examiner has made no assertion that the reference teaches or suggests generating a first value reflecting a first list of nodes in a multinode system that have access to a shared peripheral device or storing the first value at the peripheral device. In the discussion of claim 7 in the Final Office Action, the Examiner alleged that the fence groups of *Frey et al.* disclose “a configuration value module generating a unique value based upon said new membership list.” Final Office Action, p. 9. However, the reference, taken alone or in combination with *Vaughan* fails to disclose or suggest generating a value reflecting a first list of nodes in a multinode system that have access to a shared peripheral device.

Frey et al. discloses a hardware fence table that stores one entry for each fence group that operates on a system. *Frey et al.*, col. 23, ll. 19-21. When a fence group is created, the system of *Frey et al.* creates “a new value for the sub-system authority

parameter and a new entry in the software fence table for this member. In addition, these routines also create a new entry in the hardware fence table for this fence group by assigning a then unassigned value to this group.” *Id.*, col. 23, ll. 38-46. However, none of these values teaches or suggests generating a value including a first list of nodes in a multinode system that have access to a shared peripheral device.

Instead, the sub-system authority parameter is “a 7-byte externally program settable parameter field, e.g., field 464 in element 460₁.” *Frey et al.*, col. 23, ll. 35-37; Fig. 4. The software fence table entry consists “a state field, such as field 422, and a pointer field, such as field 424.” *Id.* col. 22, ll. 18-20; Fig. 4. Finally, the new entry in the hardware fence table “contains two fields: authorization index (AX) field 442 and sub-system authority parameter field 444.” *Id.*, col. 23, ll. 22-27. The AX field is a pointer to a corresponding authorization vector element identifying a fence group. *Id.* There is no teaching or suggestion that any of these pointers or fields is a value including a first list of nodes in a multinode system that have access to a shared peripheral device.

For the foregoing reasons, *Vaughan* and *Frey et al.*, taken separately or in combination, fail to teach or suggest every element of amended claim 1, and Applicant requests the reconsideration and withdrawal of the section 103 rejection of claim 1. Claims 2-3 are nonobvious at least by virtue of their dependence from nonobvious claim 1, and Applicant requests their allowance.

Claim 4 was rejected over the combination of *Vaughan* and *Frey et al.* further in view of *Mann*. However, the Examiner has not shown a teaching or suggestion in *Mann* of the steps of determining a first list of nodes in a multinode system, including a

processor-based node, that have access to a shared peripheral device and generating a first value reflecting the first list of nodes. Instead, *Mann* is cited for its teaching of using epoch variables to identify inactive replicas. Because the Examiner has not shown that the combination of *Vaughan* and *Frey et al.*, further combined with *Mann*, teaches or suggests every element of claims 4, the claim is nonobvious over the cited references and Applicant requests its timely allowance.

Claim 7, as amended, recites an apparatus for preventing access to at least one shared peripheral resource including a resource manager module configured to determine when a shared resource is in a failed state and to communicate failure of the shared resource to a membership monitor module to indicate to the membership monitor module to generate a new membership list in combination with a configuration value module configured to generate a unique value reflecting said membership list. *Vaughan* and *Frey et al.*, taken together or separately, do not disclose or suggest such an apparatus for the reasons set forth above with respect to claim 1. Therefore, Applicant requests the reconsideration and withdrawal of the section 103 rejection of claim 7.

Claims 8 and 10-13 depend from claim 7 and are nonobvious at least by virtue of their dependence from nonobvious claim 7. Applicant therefore requests the reconsideration and withdrawal of the section 103 rejections of claims 8 and 10-13.

Claim 9 was rejected over the combination of *Vaughan* and *Frey et al.* further in view of *Mann*. However, the Examiner has not shown a teaching or suggestion in *Mann* of a configuration value module configured to generate a unique value based upon a new membership list and to store the unique value locally at each node on a multinode

system. Instead, *Mann* is cited merely as teaching the use of epoch variables to identify inactive replicas. Because the Examiner has not shown that the combination of *Vaughan*, *Frey et al.*, and *Mann* teaches or suggests every element of claim 9, the claim is nonobvious over the cited references and Applicant requests its timely allowance.

Amended claim 14 recites a computer usable medium having computer readable code comprising a determination module configured to determine a first list of nodes that have access to a shared peripheral device and a generation module configured to generate a first value reflecting the first list of nodes. As discussed above with respect to claim 1, *Vaughan* and *Frey et al.*, taken alone or together, do not teach or suggest these elements. Thus, the claim is not rendered obvious by the cited references, and Applicant requests the withdrawal of the section 103 rejection of claim 14. Claims 15-16 are nonobvious at least by virtue of their dependence from nonobvious claim 14, and Applicant therefore requests the withdrawal of the section 103 rejections of claims 15-16.

Claim 17 recites a computer usable medium having computer readable code comprising a resource manager module configured to determine when a shared resource is in a failed state and to communicate failure of the shared resource to a membership monitor module to indicate to the membership monitor module to generate a new membership list in combination with a configuration value module configured to generate a unique value reflecting said membership list. As discussed above with respect to claim 7, *Vaughan* and *Frey et al.*, taken alone or together, do not teach or suggest these elements. Thus, the claim is not rendered obvious by the cited references, and Applicant requests the withdrawal of the section 103 rejection of claim

17. Claims 18-23 are nonobvious at least by virtue of their dependence from nonobvious claim 17, and Applicant therefore requests the withdrawal of the section 103 rejections of claims 18-23.

Claim 23 was also rejected over *Vaughan* and *Frey et al.* further in view of *Endicott et al.* However, the Examiner does not allege that *Endicott et al.* teaches or suggests a resource manager module configured to determine when a shared resource is in a failed state and to communicate failure of the shared resource to a membership monitor module to indicate to the membership monitor module to generate a new membership list in combination with a configuration value module configured to generate a unique value reflecting said membership list. Instead, *Endicott et al.* is cited for its teaching of generating a value based on a time stamp. Because the Examiner has not shown that the combination of *Vaughan*, *Frey et al.*, and *Endicott et al.* teaches or suggests every element of claim 23, the claim is nonobvious over the cited references and Applicant requests its timely allowance.

In view of the foregoing amendments and remarks, Applicant respectfully requests reconsideration and reexamination of this application and the timely allowance of the pending claims.

Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account 06-0916.

Respectfully submitted,

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